

Amendment Dated 01/19/06
Response to Office Action Dated 08/19/05

Application No. 09/868,686
Attorney Docket No. 05222.00157

REMARKS

Claims 1-30 are pending. Claims 1-30 are rejected. Applicant acknowledges the withdrawal of rejections of claims 1-9 and 19-24 under 35 U.S.C. § 101.

As asserted in the Advisory Action, the proposed amendments from the paper filed on October 19, 2005 were not entered because the amendments would raise new issues that would require further consideration and search.

In this paper Applicant is responding to the arguments presented both in the final Office Action mailed August 19, 2005 and the Advisory Action mailed November 3, 2005.

Claims Rejections – 35 U.S.C. §112

Claims 1-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Applicant is amending claim 1 to change “the presentation” in line 5 to “a presentation” in order establish a proper antecedent basis. Applicant is also amending claims 1 and 10 to change “usage history” to “a usage history.”

The Office Action also alleges that (Page 2):

Further it is unclear what component the usage history tracks. The claim fails to define how the usage history is gathered.

Applicant is amending claim 1 to include the feature of “(e)(2) selecting pieces of feedback based on the hierarchy and a usage history of specific pieces of feedback text” in order to clarify what is being claimed. The amendment is supported by the specification as originally filed. For example the present patent application discloses (Page 20, lines 18-21. Emphasis added.):

After the ICAT has activated CoachTopics via Rule firings, the Feedback Selection Algorithm is used to determine the most appropriate set of CoachItems

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(specific pieces of feedback text associated with a CoachTopic) to deliver. The Algorithm accomplishes this by analyzing the concept hierarchy (TopicGroup tree), the active CoachTopics, and the usage history of the CoachItems.

Applicant is similarly amending claim 10 to include the feature of "logic that selects pieces of feedback based on the hierarchy and a usage history of specific pieces of feedback text." Claims 2-9 and 11-30 ultimately depend from claims 1 and 10 and are definite for at least the above reasons. Applicant requests reconsideration of claims 1-30.

Claims Rejections – 35 U.S.C. §102

Claims 1-30 are rejected under 35 U.S.C. 102(b) as being anticipated by International Publication No. WO 97/44766 (the '766 publication).

Regarding independent claims 1 and 10, the Office Action alleges that (Page 4, section 3.):

Regarding the features added to claims 1 and 10 by the amendment dated 07/12/05, the '766 publication further teaches: evaluating work of the student by training concept, the training concepts being organized in a hierarchy (p. 106, 32 – p. 107, 6 and p. 113, 1-7); selecting pieces of feedback based on the hierarchy (p. 113, 8-34) and usage history (p. 100, 34 – p. 101, 8); and assembling and delivering the feedback to the student (p. 109, 29 – p. 111, 17).

The '766 publication fails to even suggest the features of "evaluating work of the student by training concepts, the training concepts being organized in a hierarchy," "selecting pieces of feedback based on the hierarchy and a usage history of specific pieces of feedback text," and "assembling the pieces of feedback" as included in claim 1. (Emphasis added.) The '766 publication does disclose (Page 106, line 32 – page 107, line 6):

The global parameters set by the agent and which control the materials are preferably state variables that the materials sequencing logic references in order to make educationally significant sequencing decisions. The meanings of state variables to which particular material is sensitive can be established at materials initialization according to specifications in a header materials data entry. Examples of such variables range from simple flags, such as those controlling the availability of helps and hints, to more sophisticated parameters, such as those controlling the rate of new concept introduction, the density of examples, or the speed of discrimination exercises.

The '766 publication further discloses (Page 113, lines 1-7):

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The standardization of the student data object according to this exemplary embodiment of IMIS for elementary education is simply achieved by storing student performance data according to instruction context, instruction format, and subject area. Thereby, these characteristics can be taken into account when comparing student pedagogic performance in general across subject matter areas.

However, the above teachings in the '766 publication does not relate to a hierarchy of training concepts. While the specification does not define the meaning of "hierarchy," the words of the claim must be given their plain meaning in accordance with MPEP § 2111.01. In particular, the plain meaning of "hierarchy" is "a series in which each element is graded or ranked." (The American Heritage College Dictionary, 1997, Third Edition, Houghton Mifflin Company.) The '766 publication fails to teach anything about hierarchy. The '766 publication further discloses (Page 113, lines 8-34):

The final component of IMS standardization is that of the agent action processing tables, the policy filter table, the decision weight table, and the selection rules. Event messages from the materials inform the agent of current values for the instructional context and instructional format. Since these values are parameters available to evaluate the conditions and functions contained in these tables, these tables can be, in effect, segmented into parts each corresponding to a particular instructional context and instructional format. Since there is considerable overlap between parts of these tables, the number of rules does not proliferate. The current subject area is also available to segment the tables in the cases of those subjects that can require special treatment by agent action processing. Further, the IMIS standardization permits a more systematic and effective use of the mechanism which the agent uses to set global variables in the materials. These variables facilitate adaptive adjustments of instructional parameters, such as seeding rate and amount of prompting. These variables can be more effectively set in view of the current educational paradigm as indicated by the current values of the instructional context and format. IMIS is also useful in providing information to the student in response to "Where am I?" inquiries. The system can use the information contained in the entities in the information triple to respond, "You are halfway through the drill and practice on fractions," for example.

The above teaching does not even suggest pieces of feedback that relate to hierarchical training concepts. The '766 publication also discloses (Page 109, lines 29-35. Emphasis added. :

Each of these educational paradigms is preferably handled differently by the agent in response to differing descriptive information and student performance data. For example, a sequence of correct responses in a fluency

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exercise is expected. On the other hand, a sequence of correct responses in a paired associates exercise can be worth while for the agent to comment on.

While the above teaching appears to suggest different approaches for providing feedback for different educational paradigms (Table 3 categorizes modes of instruction using a list of educational paradigms that include "Interactive tutorial," "Fluency exercise," "Paired association exercise," "Discrimination formation exercise," and "Simulation exercise"), the '766 publication fails to even suggest assembling different feedback pieces for the different exemplary educational paradigms.

The Advisory Notice further alleges (Page 2):

Applicant generally asserts that the decision processes made in the '66 publication do not include a hierarchy. Further applicant provides an exemplary definition of the word hierarchy, stating that it is "a series in which each element is graded or ranked". This interpretation of the term is reasonable, but not the exclusive definition and other definitions within the computer arts exist. Using the applicant's definition the '766 publication is still applicable. The weighted decision system described on at page 113 performs in this exact same manner.

The Advisory Action refers to the weighted decision system that is disclosed on page 113 corresponding to decision weight table 804 and action weighting 808 as shown in fig. 8 of the '766 publication. Moreover, the Advisory Action notes that the definition of "hierarchy" presented by Applicant is reasonable and does not offer any other definition. The '766 publication does not even suggest the feature of "evaluating work of the student by training concepts, the training concepts being organized in a hierarchy." (Emphasis added.) The '766 publication discloses (Page 117, lines 6-9. Emphasis added.):

Action weighting 808 references decision weight table 804 and assigns a **numeric weight to each action** in the input candidate action list. This step is described with reference to Table 8 an exemplary decision weight table.

The '766 publication further discloses (Page 118, lines 3-22. Emphasis added.):

Action selection 809 references selection criteria table 805 to select a final set of action from the input candidate action list. This step is described with reference to Table 9, an exemplary selection criteria table.

The selection criteria table consists of a list of available methods for the candidate action selection process. A selection criterion uses the computed weight and perhaps other parameters to select one or more final actions from the candidate weighted actions.

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The '766 merely discloses weighting for determining actions (e.g., "congratulate the student" as discussed on page 116, lines 23-26 and which appears to correspond to a hierarchical organization as interpreted by the Advisory Action) and does not even suggest a hierarchical organization of instructional materials 704 (as shown in fig. 7 of the '766 publication). Consequently, the '766 publication does not even suggest "training concepts being organized in a hierarchy."

Similarly, claim 10 includes the features of "logic that evaluates work of the student by training concepts, the training concepts being organized in a hierarchy," "logic that selects pieces of feedback based on the hierarchy and usage history," and "logic that assembles the pieces of feedback." Claims 2-9 and 19-24 ultimately depend from claim 1, and claims 11-18 and 25-30 ultimately depend from claim 10. Applicant requests reconsideration of claims 1-30.

It is respectfully submitted that the present application is in condition for allowance, and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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